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ABSTRACT

This paper evaluates the usefulness of a sociocultural approach for analyzing teachers' responses to the professional learning demands of standards-based reform policies. A policy-oriented case study of the practice of six elementary teachers who worked in two high-poverty schools in a demographically changing district in the state of Washington is summarized. Key findings of that study conclude that communities of teaching practice are sites for teacher learning and are mediators of teachers' responses to standards-based reform. Characteristics of the communities of practice, including their relative strength and openness (to learning), influence the degree to which teachers work out negotiated and thoughtful responses to policy demands. The present paper discusses the efficacy of Wenger's (1998) theory of learning for the study of policy to practice connections. An appendix contains research methodology. (Contains 58 references.) (Author/SM)

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# Theorizing About Teachers' Responses to Reform:
## The Role of Communities of Practice

**An Occasional Paper**

by
**Chrysan Gallucci**
University of California, Santa Barbara

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## Abstract

This paper evaluates the usefulness of a sociocultural approach for analyzing teachers' responses to the professional learning demands of standards-based reform policies. A policy-oriented case study of the practice of six elementary teachers who worked in two high poverty schools in a demographically changing district in the state of Washington is summarized. Key findings of that study conclude that communities of teaching practice are sites for teacher learning and are mediators of teachers' responses to standards-based reform. Characteristics of the *communities of practice*, including their relative strength and openness (to learning), influence the degree to which teachers work out negotiated and thoughtful responses to policy demands. The present paper discusses the efficacy of Wenger's (1998) theory of learning for the study of policy to practice connections.

## INTRODUCTION

Over the past decade, as the standards-based reform movement has swept the United States, the focus of education policy has shifted to the work of classroom teachers (Elmore, 1996; Thompson & Zueli, 1999).[1] Researchers note that the content standards commonly associated with the reforms constitute a demanding curriculum for teacher learning (Borko & Putnum, 1995; Hawley & Valli, 1999; Thompson & Zueli, 1999). However, even in states that have placed high stakes on the improvement of student learning outcomes, scholars report that the reforms are not producing significant or large-scale change in teaching practice (Spillane & Zueli, 1999; Elmore, 2000). One major flaw in the design of standards-based policies is the insufficient attention that has been paid to the teacher learning that is necessary for instructional change to occur (Elmore, 1999; Darling-Hammond & McLaughlin, 1999). Thompson and Zueli (1999) argue that the problem with the implementation of government-driven systemic reform is a misunderstanding on the part of policymakers about the kind of transformative learning required by teachers if the ambitious content standards are to be realized in practice.

The purpose of this paper is to evaluate the usefulness of a sociocultural approach to this problem. Using the construct, *communities of practice* (Lave & Wenger, 1991; Wenger, 1998), I describe how the characteristics of professional communities mediate teachers' responses to reform policies. I summarize the findings from a group of teacher case studies that were developed during the 1999-2000 school year (Gallucci, 2002). In arguing that the implementation "problem" inherent in standards-based reform is about professional learning, I draw upon sociocultural theories of learning to aid my analysis of the practice of teachers who work in two high poverty schools. In this analysis, I ask: how do communities of practice mediate what teachers learn in response to reform efforts and, consequently, what shifts or changes do they make in their instructional practice? The treatment of findings is intentionally brief in this paper and is provided as a reference point for the theoretical discussion that follows. For a full explication of the evidence base of the larger, multi-level policy study, the reader is referred to Gallucci, 2002.

The research reported here builds on an earlier set of classroom-based case studies that focused on teachers' responses to standards-based instructional policies (EEPA, 1990). Those studies demonstrated that teachers' responses to curricular reform are likely to be modest, even when the teachers themselves believe they are making major changes in practice (Cohen & Ball, 1990). That team of researchers also found that teachers' responses and predispositions toward policies vary across a broad spectrum that ranges from active openness to the demands of new policies, to active resistance to them (Cohen, 1990; Ball, 1990; Wilson, 1990; Wiemers, 1990). The studies suggested that local contexts—broadly conceived to include local conditions, interacting local policies, and teachers' own knowledge and assumptions about teaching and learning—powerfully shape teachers' responses to systemic policies. And increasingly, studies consider critical contextual dimensions of practice, especially the effects of professional relationships, *even* when the research focuses on subject-specific teacher learning. (Grossman & Wineburg, 2000; Franke & Kazemi, 2001.

There is a history of research regarding the relationship between teacher learning, teacher collaboration, and school improvement (Little, 1982, 1990, 1997; Rosenholtz, 1989; Johnson, 1990; Hargreaves, 1994; Louis, Marks & Kruse, 1996; Marks & Louis, 1999). And while there is much agreement that collaborative cultures create beneficial conditions for teacher learning, the nature of

professional cultures and their connection to teacher learning have long been viewed as problematic (Lortie, 1975; Little, 1982; 1990; Hargreaves, 1994). Recently, some researchers have considered the role of *professional community* on teachers' work. Variation among professional communities has been found to influence the ways that teachers think about their practice. For example, McLaughlin & Talbert (2001) found that differences in qualities and characteristics among high school departments (professional communities that were either innovative or traditional) accounted for differences in the ways that teachers conceived of instruction for their increasingly diverse student bodies. A relatively small number of policy researchers have also demonstrated that professional teaching communities play a role in mediating teachers' responses to policy (Spillane, 1999; Coburn, 2001). In an analysis of the ways in which teachers make collective sense of dynamic reading policies through conversations that take place in their formal and informal professional affiliations, Coburn (2001) suggests that this sensemaking process mediates the nature of individual instructional change.

I move beyond single subject matter analyses in this work and suggest that the general characteristics of their communities of practice make a difference in how elementary school teachers respond to reform policies across content areas. Knowing more about the ways that communities of practice influence teachers' work enriches our understanding of the relationship between education policy and classroom practice.

## Using Sociocultural Learning Theory to Study Teacher Learning in Context

I connected two bodies of conceptual and theoretical work in the framing of this study. First, I adapted ideas about the *embedded contexts* of teachers' work for use in this policy implementation study (McLaughlin & Talbert, 2001).[2] McLaughlin & Talbert (2001) identified a layer of context between the classroom and the school organization as "teacher community and culture" (p.144). For the purposes of this study, I defined entities such as grade-level teams of teachers, teaching partners, and other configurations of teachers who work together as *potential* communities of practice (Wenger, 1998). Communities of teaching practice were conceptualized as the locus of (a) engagement in the actions of teaching, (b) interpersonal relations, (c) shared knowledge, and (4) negotiation of meanings about the work (Wenger).

I also took into account in this study the array of social and organizational variables that have the potential to impact teacher action in relation to policy intent. They included, (a) the social conditions of students' lives, (b) school-level organizational features (such as scheduling, school design features, school culture), (c) features of the community including parent culture, (d) professional contexts, and (e) district, state, and national policy environments. The assumption was that teachers may respond differentially to a set of policies based on the social, organizational, or political conditions of their work.

Second, social theories of learning provide a theoretical basis for understanding how teachers perceive policy environments, assign meaning to them, and extract insights from them. Sociocultural learning theories create a bridge between models of embedded contexts and the study of individual teacher learning within a reform environment. In general, these theories assume that learning is a phenomenon that is situated in and mediated by sociohistorical features of the environment such as language or artifacts (Lave & Wenger, 1991; Wertsch, 1991; Wenger, 1998). I draw here on a practice-

oriented social theory of learning because the focus of this study was on learning as it occurs in the context of teaching practice.

Lave and Wenger (1991), and later Lave (1996), situate learning in communities of practice. They describe learning as shifts of participation in changing communities of practice (Franke & Kazemi, 2001). They suggest that these shifts—or learning—involve both changes in action and transformations of identity. The assumption is that individuals use means such as language, material tools or symbols, and interaction with other people to mediate their actions. Communities of practice collectively produce and are a source of cultural tools (or mediating factors) that affect individual teacher learning.

The study of the relations among (a) teachers' learning in communities of practice, (b) the organizational and social contexts of their work, and (c) teachers' instructional change calls for a theory of learning that links local practice to global supports or constraints on that practice. Wenger (1998) provides a framework for the analysis of communities of practice and their relationship to external structures. He locates communities of practice as a mid-level unit of analysis. He states that they are neither sites of specific, narrowly defined activities and interactions nor broadly defined conceptual aggregates that are abstractly social or historical (Wenger, 1998) (refer to Table A-1 in the Appendix).[3] Wenger's framework suggests, rather, that the analysis of teacher learning (learning situated within and mediated by communities of practice) falls between minute interactions and activities and the world in aggregate. This theory can elucidate the potential *connections* between teachers' practice and standards-based reform measures.

## Research Methods

A multi-level case study design was employed for this study (LeCompte & Preissle, 1993; Miles & Huberman, 1994). The study was conducted in an embedded set of policy environments (e.g., Washington State, Pinehurst School District, and two high poverty schools in that district—Rice Elementary and Maple View Elementary). Three teachers from each of the two schools were selected as the case study participants (refer to the Appendix for further description of the state, district, and school contexts). While background interviews and document collection were developed for the state, district, and school contexts, the teachers and their classroom practice were the subjects of focus for the study. The selected teachers taught a range of grade levels at the schools (1st through 5th grade) and their teaching experience ranged from 3 to 11 years.

I observed the teachers in their classrooms and across a variety of school settings especially in meetings and in other interactions with their colleagues over the course of a school year. I interviewed each teacher three times during the year and collected a variety of relevant documents such as curricular materials, lesson plans, and examples of student work. Interviews were also conducted with school principals, teacher specialists, and relevant district administrators.

Descriptive case summaries were developed for the district, school, and the six teacher cases. The teacher cases were analyzed individually using the coding system described in Table A-1 in the Appendix. I also conducted cross-case analyses of the teacher cases to develop interpretive understandings that helped explain the teachers' responses to standards-based reform (LeCompte & Preissle, 1993). Table 1 presents a summary of the major cross-case themes in each analytic category. An extended discussion of the research methods can be found in the Appendix.

**Table 1. Implementation as a Learning Problem: Cross-Case Themes**

| Category | Cross-case Theme |
|---|---|
| **Engagement in Practice** | |
| Common Tendencies among Teachers across Cases | • Teachers were using the district-mandated curricula.<br>• There was evidence of new or progressive ideas seeping into these teachers' practice.<br>• The teachers saw themselves as caregivers for their students. |
| Variation among Communities of Practice | • New teachers in weak communities of practice followed the curriculum closely.<br>• Strong and open communities made decisions about what to discard from their current repertoire.<br>• Some communities were relatively open to new ideas and some were set in their current ideas.<br>• Strong and open communities looked for instructional solutions to help ameliorate the social conditions of their students' lives.<br>• Strong and closed communities tended to "blame" the students and their families for the ways that the conditions of their lives interfered with their schooling. |
| **Opportunities to Imagine New Ideas** | |
| Common Tendencies among Teachers across Cases | • Curriculum and assessment policies represented an opportunity for new learning.<br>• There was a disparate array of inservice courses that represented the professional development opportunities for these teachers.<br>• The teachers learned from each other. |
| Variation among Communities of Practice | • Strong, closed communities of practice were suspicious of new materials and tended to reject them as a source of new learning.<br>• Strong, open communities examined the adoptions in light of their own practices and, thus, used them as an opportunity for learning.<br>• New teachers in weak communities relied on the new curricula in a way that begged questions about the richness of this means of learning.<br>• Decisions about inservice opportunities tended to be made at the individual or school level. Communities of practice were overlooked as a source of collaborative or embedded learning.<br>• School-level decisions created opportunities (or not) for teachers to work together although some communities of practice did not take advantage of the opportunities.<br>• Strong communities were more apt to influence each other and open communities tended to have a positive influence on learning within the communities. |

**Table 1 Cont.**

| **Alignment between Practice/Policy** | |
|---|---|
| Common Tendencies among Teachers across Cases<br>1. Curriculum policies<br><br><br><br>2. Assessment policies | • Curriculum adoption policies at the district-level overrode a focus on content standards.<br>• Veteran teachers negotiated alignment with district mandates.<br>• Early career teachers followed the adopted curricula and seemed to appreciate the structure.<br>• Some classroom practice broadened as a result of the assessment content.<br>• State and district assessments were driving curriculum and instruction toward test-related content.<br>• Teachers think they know better (that they should be teaching to the individual child and not to a test). |
| Variation among Communities of Practice | • Strong communities talked about curriculum together.<br>• Strong communities worked out some form of negotiated alignment with district mandates.<br>• Strong, but closed communities were predisposed to reject the district curriculum choices if they were in conflict with their current ideas about practice. They tended to work out a compliant alignment.<br>• Strong, but open communities reviewed and worked with the new materials before they integrated them into their practice in a negotiated and thoughtful way.<br>• Weak communities were compliant and relied on the district-mandated curricula.<br>• All teachers across all communities of practice were responding to the high-stakes assessment policies. These policies cut across the variation patterns among the communities of practice. |

## Teachers' Responses to Reform Policies: A Summary of the Findings.

The purpose of this paper is to discuss the usefulness of communities of practice as a construct for analyzing teachers' responses to reform policies. Therefore, in briefly illustrating the key findings of the study, I focus on the teachers' most immediate community of practice—that group of teachers with whom they work out the most pressing demands of their daily work (Wenger, 1998). The communities of practice in which the teachers participated varied along two important dimensions. First, some of the teachers in the study worked in what I characterize as *strong* communities of practice, in which teachers worked together in designing instruction and had a strong influence on each other's practice. Other teachers worked in *weak* communities of practice, in which teachers had much less influence over each other's practice.[4] Second, the stronger communities varied along a dimension that could be characterized as relative *openness* to new ideas versus *insularity*, or being closed to outside ideas. In other words, a community of practice can have a strong influence on the practice of a group of teachers and that community may be strong in its unwillingness to entertain new or reforming ideas.[5] Table 2 illustrates these dimensions.

**Table 2. Key Dimensions of Difference Among Communities of Practice**

| | Openness | Insularity |
|---|---|---|
| **Strong** | Teachers work together to design curriculum, plan lessons, and assess student work. Teachers negotiate actively with new policies. | Teachers work together, making curricular decisions and sharing responsibilities. They are set in their ways and oppose new policies. |
| **Weak** | Individual teachers design curriculum. They accept new policies, but lack community with which to create strong responses. | Teachers work alone and teach using methods that are familiar to them. They respond superficially to new policies, or tend to ignore them. |

In the following paragraphs, I provide some examples of the kinds of variation that were found among the case study teachers and their communities of practice. This summary highlights the key findings of the study and sets the stage for the theoretical discussion to follow. The section is organized according to four important assertions regarding the mediating effects of communities of practice on teachers' responses to standards-based reform.

### Assertion 1: Qualitative features of teachers' communities of practice affect teachers' interpretations of standards-based reform policies.

The ways that teachers made sense of the policy environment could be seen as they engaged in the work of teaching. For example, *all* of the teachers in this study were using district-mandated curricula. However, teachers who worked in weaker communities of practice, which included the newest teachers, were following the new reading curriculum verbatim, often teaching with the curriculum guides in their laps. Within the same schools, the teachers who were working in strong and open communities of practice were integrating the newly mandated curriculum into their practice in a thoughtfully negotiated

form of alignment with the policy. For example, one third-grade teacher and her grade-level teammates had developed a series of genre studies that had formed the content of their third-grade reading curriculum for several years. During the first year of the district reading adoption, these teachers used the adopted materials, but had *"opted out of the series for [our] reading rotations."* The teachers made their decision after using the new series, testing it out, and later negotiating their use of it based on their own knowledge and ideas about reading instruction. *"The stories in the reading series skip around. There may be a 'tall tale' here or there and maybe a historical fiction in the same theme. They fit the theme, but it's not really studying the genre in a chunk. And I feel, we all feel, that our kids learn better (I think we all learn better) when we can identify what we are studying."*

Noting the high-poverty settings in which they worked, the teachers in this study described themselves as *caregivers* for their students. The multi-level nature of the study provided evidence that the teachers' identity as caregiver was affected by school-level variables. In the school that had a strong programmatic vision—Rice Elementary had the Title 1 inclusion model—teachers took collaborative responsibility for developing a strong instructional program to support student learning. They added many school-wide supplemental supports to their instructional program such as an Accelerated Reader program, a volunteer tutoring program, and the Title 1 inclusion model. Maple View lacked a cohesive building-level vision and there, individual teachers tended to focus on the social conditions of their students' lives, in some cases, complaining that *"it's hard to keep a positive attitude when you are dealing with these kinds of kids all the time and you never get parent support and you have kids coming in tardy everyday"* (the reader is referred to the Appendix for brief descriptions of both schools).

In regard to this finding, the effects of the communities of practice were also observable. The teacher in a strong, open community at Rice Elementary was focused on developing a variety of instructional programs to meet the needs of her diverse students. However, a teacher in a strong but insular community of practice at Maple View Elementary was focused on the characteristics of her students that she felt made them unable to perform certain tasks or understand particular curricula. One teacher changed curricula to meet student needs; the other teacher expected the students to change in order to understand the curriculum. Differences in their communities of practice affected the ways that the teachers made sense of the social conditions of their students' lives and the associated implications for their work. These variations also affected the ways the teachers took up opportunities for learning.

**Assertion 2: Characteristics of teachers' communities of practice affect their engagement with opportunities for learning.**

Viewed at the level of policy design, Washington State and the Pinehurst School District had placed strong sets of ideas about curricula, in the form of content standards and assessments, into the environments in which these teachers worked. From the perspective of district officials, all of the teachers in the district had received "training" on their new adoptions and on the new forms of assessment. From the vantage point of the teachers, much of their opportunity for new learning consisted of a disparate array of inservice courses.

School-level organization and professional community influenced how opportunities for learning were taken up by teachers within their communities of practice. By virtue of particular policies such as school design, teacher assignment, and scheduling, schools influenced things such as membership in teacher communities and time for communities to meet. At Rice Elementary, the strong school mission

affected the teachers' generally educative stance toward their students; they believed that their Title I inclusion model worked, and that was evidenced in the high scores the students received on the state performance-based assessments. However, in both schools, there were examples of communities of practice being overlooked as potential sites for collaborative, sustained, or embedded professional development. Even in cases in which teachers were strongly influencing each other's practice, there was no evidence that anyone outside that community had purposely sought to design learning opportunities with the potential strength of that arrangement in mind.

The characteristics of the stronger communities of practice mediated the ways that the opportunities for learning were taken up by the teachers in this study. Because the communities could be either open to new ideas or closed off and insular, they affected how the teachers interpreted new ideas. Predictably, for example, a teacher in a strong but insular community of practice was suspicious of the district's new adoptions, as well as their curricular frameworks. She tended to reject them as a source of new learning. She commented, *"I guess a lot of language in the Essential Learnings [district content standards] is in the state curriculum. It is very general and very broad. Instead of starting from the basics and working out* [like we believe you should for first graders], *they are starting out broad and coming back."* In contrast, a teacher working in a strong and open community of practice had spent the summer working with fellow teachers to organize the 3rd grade curriculum to address the district's Essential Learning outcomes.

**Assertion 3: Characteristics of teachers' communities of practice influence the kinds of changes that teachers make in their instructional practice in response to reform policies.**

The teachers at both schools expressed being overwhelmed by the newly adopted curricula. Their focus on becoming familiar with these new texts and materials overrode any potential focus on content standards. However, veteran teachers who were members of strong communities of practice talked about the curriculum adoptions and worked together to develop *negotiated* alignment with the district mandates. Those communities that were typically open to new ideas interacted with the new materials and engaged their own knowledge to make decisions about their use (such as the teachers who decided to use their own genre studies for reading instruction).

Teachers who worked in strong communities that were more insular tended to respond superficially to the district mandates. They used the new materials enough to appear that they were conforming with policy, but they were actually doing what they had always done. For example, the first grade teacher at Maple View Elementary and her community of practice did not like the district's adopted reading series, but they did use it. *"Usually, I will introduce the leveled reader to the whole class as part of my morning routine. I haven't been overly fond of this series. If you did everything the series requires, it would take all day. I usually send copies of the leveled readers home with the kids."* This group of teachers was given waivers nine years ago to use another program. *"It's separate from the series, but we've been allowed to continue to use the Write to Read program. I hope they don't take it away because it's such a good program."* They use the "Write to Read" program three days a week for reading and writing instruction. When asked, these teachers described themselves as using the district's adoption.

Newer teachers, who in this study worked in weaker professional communities, were also compliant with district mandates. They relied on the district's choices as the primary source of curriculum materials and ideas. Their experience is an example of the effects of weak community among teachers.

One can assume that the newer teachers wanted curricular guidance. The fact that it came in the form of textbook guides represents a lost opportunity for collaborative or sustained learning and engagement.

**Assertion 4: Some reform policies overpower the characteristics of the teachers' communities of practice.**

Teachers perceived the new assessment policies as having particularly high stakes for their work and as demanding their immediate response (McNeil, 2000; Whitford & Jones, 2000). Some aspects of these teachers' practice were broadened by their attempts to align their teaching with what they perceived to be the requirements of the new tests. For example, I observed teachers asking students to explain their answers to mathematical problems and using the six traits writing process methods that were promoted by the district. However, all of the teachers commented that the assessment policies were driving their practice toward test-related content. Teachers of 3rd- and 4th-graders especially expressed dismay at the amount of time that they were spending on test preparation activities.

The 4th-grade teacher at Rice Elementary said that she was teaching only things that were required on the new state assessment. *"It has taken a lot of freedom from us to teach the kinds of lessons we would like to teach. I don't consider many lessons that absorb any time at all unless I see that there is a very clear connection* [to the new tests]." She claimed that "clearly 80% of the day" was in some way connected to test preparation. At Maple View, the 4th/5th-grade teacher added, *"It's definitely narrowing the curriculum. It's all focused on three subjects [reading, writing, math] and I think it's focused on specific types of skill."*

These powerful assessment policies cut across the differences in the communities of practice. The perception of the tests' high stakes for both teachers and students seemed to stun the teachers and they did little to achieve a negotiated alignment with the assessment (or the looming school accountability) policies. All of the teachers expressed deep concern about these negative effects. One teacher commented, *"We were always taught in school not to teach to the assessment but have your assessments reflect what you've been teaching. Our curriculum had not been addressed in a long time. Now they are addressing it, but they are focusing it so that it teaches to the assessment."*

Summarizing, as I studied the practice of these six teachers, I observed them working together in professional groups that I have described as communities of practice. Their interaction and identification with these communities—whether weak, strong, open or closed—mediated the teachers' individual responses to policy. In the following section, I discuss the relevance of sociocultural learning theory and the construct of communities of practice for policy implementation research.

# Policy Implementation as a Learning Problem: A Theoretical Discussion

I began this research with a set of *policy to practice* questions that queried the response of elementary school teachers to state and district-level standards-based reform. I framed the interaction between standards-based policies and teacher practice as a problem of learning. I questioned the ways in which elementary school teachers, especially those who worked in high-poverty settings, were either supported or constrained by the intensity of the policy environment. Sociocultural learning theory provided a useful lens through which to pursue these questions.

## Usefulness of Wenger's Theory

Although sociocultural perspectives on learning formed the theoretical framework for this study, I did not set out to study professional communities or communities of practice among teachers. As I observed the six teachers in this study and questioned them about their work in the context of standards-based reform, I noticed, however, that their explanations were often framed in collaborative terms. They talked about the ways that "they" —that is, themselves and the teachers with whom they worked—were developing responses to the social conditions of their students' lives and to the very present instructional policies associated with standards-based reform. I theorized that these teacher work groups were communities of practice and that they were mediating individual teacher learning and response to policy. Given this orientation, I turned to the work of Wenger (1998) as a tool for the analysis of my data.

Wenger's (1998) theory of learning falls among a broad set of social and psychological traditions that aim to keep the *individual* in play with the *social*, and action in a dialectic with structure (Giddens, 1984; Wertsch, 1985; Bruner, 1990; Lave & Wenger, 1991; Rogoff, 1995; Cole, 1996). These traditions view action and structure as mutually constitutive of each other, and as existing in transactional relation to one another. These sociocultural views of human phenomena lend themselves well to the study of structural conditions such as policy and their connections with individual actions such as teaching.

As noted earlier, Wenger (1998) addresses sociocultural learning theory within an organizational context. He notes "learning is an issue of sustaining the interconnected communities of practice through which an organization knows what it knows and thus becomes effective and valuable as an organization" (p. 8). This move to apply sociocultural learning theory to organizational contexts provides a particularly salient and useful framework for the study of the connections between education policy and classroom practice because teachers' work takes place in complex social and organizational contexts (districts, schools, and their communities).

There are other sociocultural theories of learning (and related constructs) that might provide useful tools for understanding the phenomena that I studied. Each of these orientations suggests a particular way to understand the problem of teacher response to policy. In large part, the choice of theory comes down to the relevance of what is foregrounded by a particular theoretical perspective in the context of the questions of interest.

## Why *This* Sociocultural Theory?

An example of another sociocultural orientation is activity theory and the associated concept of appropriation (Herrenkohl & Wertsch, 1999).[6] Herrenkohl and Wertsch distinguish between the mastery of a cultural tool (learning of the skills involved), and the appropriation of that tool as one's own. They apply the distinction between *mastery* and *appropriation* to the study of how children learn critical thinking skills through elementary science lessons. One can make a connection here between teachers' compliant use of curriculum materials, for instance, and a more thoughtfully worked out *negotiated alignment* with those instructional tools. In the first case, one could assume some level of mastery of the materials; in the second case, the teachers have appropriated the material as their own, modifying their use of them within the context of their particular practice.

The concept of appropriation applied in this manner is quite useful in understanding the individual teacher's response to a particular instructional policy. This lens foregrounds the cognitive development of the individual teacher, but is not as well suited to analyzing the ways that teachers learn in professional communities. The activity setting itself is context for individual appropriation; however, the focus of *this* study was on social organization at a broader level, including the interaction between individual actions, communal interactions, and the larger social structure.

Rogoff (1995) proposed a somewhat different unit of analysis for the study of learning and development. She suggested that learning takes place within activity systems that include three interdependent planes of analysis: participatory appropriation, guided participation, and apprenticeship. She described appropriation as participation (by the individual) in social activities and the process of that participation as "the substance of cognitive development" (p. 151). She saw guided participation as the interpersonal involvement of individuals and their social partners in social activity. She connected participation in smaller social groups to the accomplishment of larger institutional or cultural goals through a process of apprenticeship. Through apprenticeship, a novice learner is guided into increasingly more expert involvement in a broader social activity.[7] The development of the individual learner within the sociocultural activity is the primary unit of analysis.

Each of these theoretical frames provides a potentially useful lens for the study of teacher learning and teacher response to educational policy environments. The application of Wenger's theory to this analysis, however, foregrounds a midlevel unit of analysis (communities of practice). His analysis of learning as it occurs within communities of practice (through engagement in joint work, exposure to new ideas, and efforts to make shifts in practice) adds much needed contextual information to what has previously been understood about teachers and their response to a standards-based reform environment. This orientation broadens our attention from the cognitive development and knowledge of the individual teacher, such as a teacher's knowledge about mathematics, to include the characteristics of the most local community context mediating that learning. It adds clarification to the phenomenon of within-school variation among teachers' responses to policy.

Subject-matter contexts have often been sites for the study of individual teachers' response to policy, especially to content-specific standards (EEPA, 1990; Jennings, 1996; Spillane, 2000). Previous studies, such as "The Case of Mrs. Oublier," were focused on how the individual teacher had understood and realized—or failed to understand and realize—reform intent in her teaching (Cohen, 1990). That study did not systematically examine the contexts of Mrs. O's work or her relation to them. There was an

underlying expectation for enculturation in that case description—Mrs. O was expected to take up the mathematics reform in a particular way. The explanation for her implied failures did not explore the texture of her response as part of a broader picture of her teaching practice in relation to the various mediating contexts for her work. However, elementary school teachers face content standards across multiple subject matters that accumulate into intense demands for new learning (Gallucci, 1998; Spillane, 2000). In order to further our understanding of teachers' responses to standards-based policies, I studied the work of teaching across these multiple contextual demands. The use here of a particular sociocultural framework afforded a means to: (a) simultaneously study the policy environment, the contexts of teachers' work, and teachers' efforts to make meaning of the multiple dimensions of their teaching practice; and (b) to foreground teacher learning within communities of practice.

Previous work has clarified the transactional relationship between policy and the complex conditions of teaching practice, as well as the embedded nature of teaching practice (that is, teaching as embedded in multiple layers of organizational, social, and political contexts). However, the nature of these transactional relations, including those between change processes operating at the individual and organizational levels is not well understood. Sociocultural learning theory addresses exactly these kinds of transactional processes, and Wenger's framework focuses specifically on the ways that changes in practice (learning) are mediated by organizational structure and process. The findings of the present study suggest that this theoretical orientation to the problem of policy implementation has considerable heuristic value for researchers, policymakers, and practitioners.

## Communities of Teaching Practice: Implications for Research, Policy, and Practice

By design, this research focused on a limited number of teachers in order to develop a deeper contextual understanding of their response to a particular set of instructional policies. This, of course, raises important questions about generalizability. The promise of this approach for understanding problems of policy implementation is supported, however, by the results of other case studies and survey research. Recent findings demonstrate the effects of social and organizational factors on teachers' responses to dynamic educational policies and the changing social conditions of their students' lives (see McLaughlin & Talbert, 2001; McNeil, 2000; Whitford & Jones, 2000; Coburn, 2001, for example).

The findings reported here clarify the need for further research regarding the use of this sociocultural construct for understanding teachers' responses to policies. I document that communities of practice among teachers vary along two important dimensions: (1) the relative strength or weakness of the community and (2) the relative openness of the community to engagement with new ideas about instructional practice. I hypothesize that these differences among the communities of practice affect teachers' interpretations of standards-based reform policies, their engagement with learning opportunities, and, subsequently, the kinds of changes that they make in classroom practice. These findings would be strengthened by research that further probes individual teachers' participation in communities of practice as well as across multiple communities of practice documenting evidence of

learning from one professional setting to another (such as from one community of practice to another, or from a community of practice to a classroom).

A primary concern for educators and policymakers is the strengthening of existing and latent communities of practice. These findings suggest that strong and open-minded communities of practice represent *learning communities*. Further research is necessary to understand the conditions that enhance and sustain these kinds of collaborative structures among teachers.

## Strengthening Communities of Practice

Educational leaders need information about how to *recognize* communities of practice among teachers. This theoretical approach to the problem of reform implementation suggests that learning is occurring *in practice*—whether we recognize it to be or not. The ability to see communities of practice and how they serve to mediate teacher learning and teachers' responses to policies is a natural first step toward harnessing that energy in a direction that supports positive instructional change (that is, change that leads to the improvement of student learning outcomes).

I distinguish here between communities of practice and more formal and time-limited entities such as task forces or teams. Teams of teachers, or other educators, may exist to accomplish a particular, predefined task (such as reviewing a particular curriculum or developing a strategic plan); they may or may not become communities of practice—entities in which teachers negotiate the meaning of their everyday work through their learning and identification with a community of other teachers. Communities of practice—unlike informal networks that may also pass information among friends or co-workers—create, expand, and exchange knowledge about their practice, as well as develop individual capabilities (Wenger, McDermott, & Snyder, 2002).

Among the biggest barriers to harnessing communities of practice are time and other institutional structures. Nonetheless, there is much that could be done at the district and school levels in terms of design and planning to ensure that communities of practice develop among teachers. Many school buildings have structures that encourage such arrangements, such as pods, clusters, and grade-level teams. Schools that acknowledge and encourage vision setting, ongoing professional learning, and collaboration among teachers will enhance the probability that communities of practice exist as strong sites of professional growth. Schools that are organized in ways that encourage these activities (for example, schedules that provide collaborative planning time, and activities that require collaboration among the members of communities of practice) enhance the probability that communities of practice will flourish. Without such organizational support and conscious planning, communities of practice may languish, depending on the volunteer or spare time efforts of particularly energetic teachers.

These recommendations echo earlier calls for school-level organizational features that support *and reward* various forms of teacher collaboration (Darling-Hammond, 1996; Little, 1999). Darling-Hammond identified a number of activities that local groups of teachers might usefully engage in such as shared curriculum development, setting high standards for student work, and collective assessments of student learning. As noted by Little and affirmed by the work of McLaughlin and Talbert (2001), strong teacher learning communities question and challenge curricula, pedagogies, and outcomes for students. The findings reported here add to earlier suggestions that policymakers prioritize and support

collaborative professional structures and search for ways to focus the work of teaching communities on positive educational outcomes.

Boundary crossings are opportunities for new learning for communities of teaching practice (Wenger, 1998). Classroom teachers might travel to curriculum committees that include members from various school sites. Returning to their home-school community of practice, these travelers bring new ideas. Another example of boundary crossing is found in the practice of *intervisitation* in Community School District #2 in New York City (Elmore & Burney, 1997). In that school district, teachers travel to lab sites where mentor teachers model exemplary teaching practices. Likewise, professionals who work as on-site staff developers travel between communities of practice, such as district offices to school sites, and they also have the opportunity to infuse local communities of practice with new information about their work.

Teacher leaders working from within communities of practice might also be the travelers or boundary crossers who bring new knowledge back to their community of practice. Support and encouragement of 'teachers as reformers' or 'teachers as curriculum developers' take on added importance when viewed in this light. Teachers who are empowered to participate in reform-minded activities might infuse their community of practice with such spirit and activity (especially if they are given support in terms of time and learning experiences). Practitioners working together toward reform goals have been described as "apprenticing [themselves] to one another" in their efforts (Dutro, Fisk, Koch, Roop, & Wixson, 2002). These kinds of practice-based efforts to respond to reform lead to a certain *accountability of practice* that is essential given the kinds of expectations that standards-based reforms have placed upon classroom teachers.

## Dimensions of Learning and Policy Design

Policymakers face some distinct limitations on what they can accomplish regarding professional communities. Previous research suggests that policies cannot, for instance, mandate what or how teachers learn (McLaughlin, 1987). They cannot mandate that teachers all work together in strong communities of practice or that they develop openness to new ideas. They likely cannot expect that systems or people will change in particular ways because of policy demands. They can, however, provide incentives and support for teachers to work together in communities of practice. They can focus attention and resources such as money and time on activities that engage teacher knowledge and that infuse communities of local practice with new ideas for their work. A good example of this type of activity, supported by government resources, were the local and state-level committees that engaged many classroom teachers in developing content standards and curricular frameworks during the early years of standards-based reform efforts (Gallucci, 1998; Dutro, et al, 2002).

As policies are designed and as they are taken up in local settings, there are some dimensions of learning in practice that bear attention on the part of educators and policy designers (Wenger, 1998). First, learning is enhanced when meaning making is balanced between reified perspectives (such as those enacted through legislative policy) on the one hand and participation on the part of local practitioners, on the other hand. Of course, some ideas are realized in policy and some are not, and those contribute to what gets learned. But, the big ideas of policy exist in concert with participation in

practice. Wenger suggests that it is through this duality (reification and participation) that the process of negotiating *meaning*, or learning, takes place.

If, for instance, policy is mandated (reified) at state or national levels of the system, leaving little opportunity for negotiation, then there may be little chance to develop relevant meaning through participation. Although actions at the local-level, or street-level, might change the original intent of such policies, those actions consist too often of localized reactions to policy demands (Weatherly & Lipsky, 1977). The same participation on the part of practitioners might have broad application to the field if local response were a supported and expected outcome of education policies. For example, state policy makers could "give permission" to local districts, schools, and teachers to use any of a variety of strategies to develop locally sensible responses to broad visions for reform (Dutro, et al, 2002).

The *direction* of social energy is best balanced, then, with the *generation* of social energy. Policies that are generative and that invite teachers to engage practical knowledge and to negotiate local meaning, give rise to ongoing learning. Using the example provided above, many state-level policy makers proposed that content standards be developed, but when they left the decisions about the content of those standards to the professional community, including classroom teachers, they balanced the direction of social energy with the generation of social energy (Gallucci, 1998; Dutro, et al, 2002).

It seems clear from these findings that the teachers in communities of practice that generated negotiated responses to standards-based reform policies were involved in making good local sense of those policies for their students. On the other hand, when the balance of power between policy design and teacher negotiability favored external sources of ideas (such as with the new state assessment policies), teachers felt compelled to be compliant with mandates that they disagreed with and even strong communities of practice were powerless to make a difference. The teachers were in danger of becoming disengaged from their own work. In these cases, communities of practice became an overlooked source of creative energy to produce positive learning outcomes for students.

Designs for learning require the *power* to influence the negotiation of meaning at the local level (Wenger, 1998). The process of identification gives meaning to our membership in communities, but it does not define the importance of those meanings within larger social configurations. That process involves having the ability and legitimacy to define whose, or which, meanings count. Local meanings, for instance, may be extremely, even intimately, important to members of communities of practice. But they may carry little or no power within larger professional contexts.

This tension came into play in this study when the power and meaning accorded to state-level student assessments carried high stakes, such as media attention and consequences for local schools. In that situation the local meanings that teachers held existed in tension with the importance of externally developed standards for practice. Teachers were caught in the dilemma of reshaping their identity around a new set of ideas or negotiating a local response to those ideas, or both. Here issues of power came into play; the ability of teachers working within communities of practice to negotiate meaning made a difference in terms of their response to standards-based reform. The privileging of a global set of ideas over local meaning led, in some cases for example, to a non-participatory or compliant response on the part of teachers. The ideal would be to balance perspectives and allow for negotiability of meaning at the local level.

This study provides evidence that communities of practice among elementary school teachers are sites for professional learning and negotiation with reform policies. The challenge for those concerned with the improvement of educational outcomes, especially for students who attend high poverty schools, is to develop further awareness of the effects of local professional communities on teachers' practice. Future research is needed to provide educators and policy makers with guidelines for recognizing and strengthening existing communities of practice and for designing organizational structures that support their development.

# ENDNOTES

[1] Standards-based, or systemic, reform was conceived as an attempt to achieve policy coherence by aligning three areas of education policy: (a) high curricular standards and aligned assessments of student progress; (b) standards for teacher education, licensure, continued professional development, and evaluation; and (c) support for schools to structure the time and conditions for student and teacher learning (Smith & O'Day, 1991; Knapp, 1997). State governments have taken an unprecedented lead over the decade of the 1990s in establishing curricular frameworks, related statewide student assessments, and systems for holding schools and teachers accountable for raising student outcomes.

[2] Traditionally, the idea underlying "embedded contexts" is that individuals act within a set of nested environments that give meaning to, provide resources for, and shape that action. See Bronfenbrenner, 1978 or, more recently, McLaughlin & Talbert, 2001.

[3] Wenger (1998) argues, "Our actions do not achieve their meanings in and of themselves, but rather in the context of a broader process of negotiation. By starting with practice as a context for the negotiation of meaning, I do not assume that activities carry their own meanings" (p.286). Therefore, discrete activities, or systems of activities, are not the unit of analysis here.

[4] Weak professional communities may be a misuse of the construct communities of practice, however I use the term (weak) here to distinguish the characteristics of the professional affiliations that I observed among the teachers who I studied. This is an example of an area that requires further research.

[5] These findings map closely onto the findings that McLaughlin & Talbert (2001) report regarding high school teachers and professional communities. We have converged upon a similar set of ideas about the nature of communities of practice across teachers who work in both high school settings and elementary schools.

[6] I am using the term activity theory rather loosely here to encompass a wide range of post-Vygotskian theorists who proposed activity as the appropriate psychological unit of analysis for the study of learning. Herrenkohl & Wertsch (1996) were specifically concerned here with "mediational means" or the use of cultural tools in human action.

[7] Rogoff (1995) applied this theory to the study of Girl Scout cookie sales and the study of young children's cognitive development in learning how to participate in that activity.

## References


Ball, D. (1990). Reflections and deflections of policy: The case of Carol Turner. *Educational evaluation and policy analysis, 12,* 327-345.

Borko, H., & Putnum, R. T. (1995). Expanding a teacher's knowledge base: A cognitive psychological perspective on professional development. In T. R. Guskey & M. Huberman (Eds.). *Professional development in education: New paradigms and practices* (pp. 35-36). New York: Teachers College Press.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist,* 513-531.

Bruner, J. (1990). *Acts of meaning.* Cambridge, MA: Harvard University Press.

Coburn, C. E. (2001). Collective sensemaking about reading: How teachers mediate reading policy in their professional communities. *Educational evaluation and policy analysis,* 23, 145-170.

Cohen, D. K. (1990). A revolution in one classroom: The case of Mrs. Oublier. *Educational evaluation and policy analysis, 12,* 327-345.

Cohen, D., & Ball, D. (1990). Relations between policy and practice: A commentary. *Educational Evaluation and Policy Analysis, 12,* 347-353.

Cole, M. (1996). *Cultural psychology: A once and future discipline.* Cambridge, MA: The Belknap Press of Harvard University Press.

Darling-Hammond, L., & McLaughlin, M. W. (1999). Investing in teaching as a learning profession: Policy problems and prospects. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 376-411). San Francisco: Jossey Bass.

Denzin, N. K. (1978). *Sociological methods: A source book* (2nd ed). New York: McGraw-Hill.

Dutro, E., Fisk, M.C., Koch, R., Roop, L.J., & Wixson, K. (2002). When state policies meet local district contexts: Standards-based professional development as a means to individual agency and collective ownership. *Teachers College Record, 104,* 787-811.

Educational Evaluation and Policy Analysis (EEPA) (1990). Entire thematic issue (devoted to the findings of the California study of elementary mathematics). Vol. 12, no. 3 (Fall).

Elmore, R. F. (1996). Getting to scale with good educational practice. *Harvard Educational Review,* 66, 1-26.

Elmore, R. F. (April, 1999). *Learning in classrooms, schools, and school systems: The problem of large-scale educational improvement.* The Dewitt Wallace Lecture presented at the annual meeting of the American Educational Research Association, Montreal.

Elmore, R. F. (2000). *Building a new structure for school leadership.* Washington, DC: Albert Shanker Institute.

Elmore, R. F., & Burney, D. (1997). *School variation and systemic instructional improvement in Community School District #2, New York City.* Unpublished manuscript, Learning Research and Development Center, University of Pittsburgh.

Franke, M. L., & Kazemi, E. (2001). Teaching as learning within a community of practice: Characterizing generative growth. In T. Wood, B. Nelson, & J. Warfield (Eds.), *Beyond classical pedagogy in teaching elementary mathematics: The nature of facilitative teaching.* Mahwah, N.J.: L. Erlbaum Associates.

Gallucci, C. (Oct.-Nov.,1998). *Policy and professional growth: Teachers' reconstructing practice in a climate of state reform.* Paper presented at the annual convention of The University Council for Educational Administration, St. Louis, MO.

Gallucci, C. (April, 2000). *Framing the study of teachers' response to systemic reform in high-poverty elementary schools.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Gallucci, C. (2002). *Communities of practice and the mediation of teachers' response to standards-based reform.* Unpublished doctoral dissertation, University of Washington, Seattle, WA.

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration.* Berkeley: University of California Press.

Grossman, P., & Wineburg, S. (2000). *What makes teacher community different from a gathering of teachers?* (Document O-00-1). Seattle, Washington: University of Washington, Center for the Study of Teaching and Policy (CTP) and Center on English Learning and Achievement (CELA).

Hargreaves, A. (1994). *Changing teachers, changing time: Teachers' work and culture in the postmodern age.* New York: Teachers College Press.

Hawley, W. D. & Valli, L. (1999). The essentials of effective professional development. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice.* San Francisco: Jossey-Bass.

Herrenkohl, L. R., & Wertsch, J. V. (1999). The use of cultural tools: Mastery and appropriation. In I. E. Sigel (Ed.), *The development of mental representation: Theories and applications.* Mahwah, NJ: Lawrence Erlbaum Associates.

Jennings, N. E. (1996). *Interpreting policy in real classrooms: Case studies of state reform and teacher practice.* New York: Teachers College Press.

Johnson, S. M. (1990). *Teachers at work: Achieving success in our schools.* New York: Basic Books.

Knapp, M. S. (1997). Between systemic reform and the mathematics and science classroom: The dynamics of innovation, implementation, and professional learning. *Review of Educational Research, 67,* 227-266.

Lave, J. (1996). Teaching, as learning, in practice. *Mind, Culture, and Activity, 3,* 149-164.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press.

LeCompte, M.D., & Preissle, J. (1993). *Ethnography and qualitative design in educational research* (2nd ed.). San Diego, CA: Academic Press.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19,* 325-340.

Little, J. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91,* 509-536.

Little, J. (1997). *Excellence in professional development and professional community.* Working paper. University of California, Berkeley.

Lortie, D. C. (1975). *Schoolteacher: A sociological study.* Chicago: University of Chicago Press.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal, 33,* 757-798.

Marks, H. M., & Louis, K. S. (1999). Teacher empowerment and the capacity for organizational learning. *Educational Administration Quarterly, 35,* 707-750.

McLaughlin, M.W. (1987). Learning from experience: Lessons from policy implementation. In A. R. Odden (Ed.), *Education policy implementation.* New York: SUNY Press.

McLaughlin, M.W. & Talbert, J. (2001). *Professional communities and the work of high school teaching.* Chicago: University of Chicago Press.

McNeil, L. M. (2000). *Contradictions of school reform: Educational costs of standardized testing.* New York: Routledge.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis. (2nd ed.).* Thousand Oaks, CA: Sage Publications.

Rogoff, B. (1995). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In J. V. Wertsch, P. Del Rio, & A. Alvarez (Eds.), *Sociocultural studies of mind.* Cambridge: Cambridge University Press.

Rosenholtz, S. (1989). *Teachers' workplace: The social organization of schools.* New York: Longman.

Smith, M., & O'Day, J. (1991). Systemic school reform. In S. H. Fuhrman & B. Malen (Eds.), *The politics of curriculum and testing* (pp. 233-268). Bristol, PA: The Falmer Press.

Spillane, J. P. (1999). External reform initiatives and teachers' efforts to reconstruct their practice: The mediating role of teachers' zones of enactment. *Journal of Curriculum Studies, 31,* 143-175.

Spillane, J. P. (2000). A fifth-grade teacher's reconstruction of mathematics and literacy teaching: Exploring interactions among identity, learning, and subject matter. *Elementary School Journal, 100.*

Spillane, J. P., & Zeuli, J. S. (1999). Reform and teaching: Exploring patterns of practice in the context of national and state mathematics reforms. *Educational Evaluation and Policy Analysis, 21,* 1-28.

Spradley, J. P. (1979). *The ethnographic interview.* Fort Worth, TX: Harcourt Brace Jovanonich.

Thompson, C. L. & Zeuli, J. S. (1999). The frame and the tapestry: Standards-based reform and professional development. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice.* San Francisco: Jossey-Bass.

Weatherly, R., & Lipsky, M. (1977). Street-level bureaucrats and institutional innovation: Implementing special education reform. *Harvard Education Review, 47,* 171-197.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge, UK: Cambridge University Press.

Wenger, E., McDermott, R., & Snyder, W.M. (2002). *Cultivating communities of practice.* Boston, MA: Harvard Business School Press.

Wertsch, J. V. (1985). *Vygotsky and the social formation of mind.* Cambridge, MA: Harvard University Press.

Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action.* Cambridge, MA: Harvard University Press.

Whitford, B. L., & Jones, K. (2000). *Accountability, assessment, and teacher commitment: Lessons from Kentucky's reform efforts.* Albany, NY: SUNY Press.

Wiemers, N. J. (1990). Transformation and accommodation: A case study of Joe Scott. *Educational evaluation and policy analysis, 12,* 327-345.

Wilson, S. M. (1990). A conflict of interests: The case of Mark Black. *Educational evaluation and policy analysis, 12,* 327-345.

Yin, R. K. (2002). *Case study research.* (3rd ed.). Newbury Park: Sage Publications.

# Appendix: Research Methods

I used qualitative case study methods in the design for this study (Yin, 2002). The phenomenon of interest was the way that the dimensions of the policy environments, the individual teachers, and other social and organizational factors interacted with one another. I studied the ways in which teachers responded to policy, but I did not study all aspects of teachers' work.

### Sample Selection and Settings

The study was conducted in the State of Washington. As legislated in 1993, the state had several components of standards-based reform in place, including content standards and performance-based assessments; policies aligning accountability measures, teacher certification, and teacher education with the curricular reforms were under consideration at the time of this study.

The investigation took place in Pinehurst School District (PSD), a mid-sized urban and semi-urban school district located along the main western corridor of the state. The district was located in one the fastest growing areas of the state and several of its schools had rapidly increasing numbers of economically disadvantaged or non-English speaking immigrant students. Pinehurst School District served approximately 21,500 students at the time of this study (an increase of about 33% over the 1990s). The district-wide free- and reduced-price lunch (FRL) population was about 10% in 1980 and was up to 40% in the 1999-2000 school year; it was over 50% in the elementary schools. Of the 21 elementary schools in the district, 13 were school-wide Title 1 eligible. [The Pinehurst community had suffered a severe economic downturn over the decade of the 90s due to the closing of several industrial plants.] Approximately 20% of the total students were receiving services for English Language Learners—the majority of those students were Spanish or Russian language dominant. In terms of ethnicity, the district had a stable pattern of about 85% White students. The percentage of African American students was stable at about 4%, but the Latino/a student population had risen from 2.5% to 7% over the decade of the 1990s.

Pinehurst had responded quickly and decisively to the state-level standards-based reform measures. Over a period of four years, PSD had centralized its curricular policies through three new content area adoptions (reading, science, and math). The mandated use of a specific reading series, for example, was considered controversial because prior to 1997 decisions about reading materials and related pedagogical practices were made at the school level. In addition, the district had developed an aggressive response to the new state-level student assessments, adding its own assessments and test-preparation requirements to those of the state. Washington State, in conjunction with the Riverside Publishing Company, developed the Washington Assessment of Student Learning (WASL). The test was in part a performance-based measure that was intended to test student outcomes on the legislature adopted curriculum standards. The test was administered in grades 4, 7, and 10; most districts, Pinehurst included, began administering the test in the spring of 1997 in English Language Arts and Mathematics.

Two schools that were characterized by high levels of poverty were selected for the study. I chose *high poverty* schools because the social conditions of students' lives and the generally low scores on standards-based assessments in such schools make them sites of particular interest for policy implementation research. These two schools were recommended by district personnel for the variance

in their instructional approaches to school improvement, school organization, and professional cultures. The student populations of the schools were slightly more diverse than the district's overall student population; however, the students in both schools were predominately poor and White (69%-75%).

Maple View Elementary reported the following student data in 2000: 75% White, 15% Hispanic [district terminology], 5% African American, 3% Asian, and 1% American Indian students. At Maple View Elementary about 90% of the students received free or reduced price lunch (1999-2000). The school had high mobility rates such that about *one-third of the students turned over in the first three months of school*. Less than 45% of the students at Maple View met or exceeded state standards on the new performance-based assessments in reading and mathematics (between 1998 and 2000 reading scores rose from 36% to 45%; math scores rose from 19% to 31%). Program delivery services at Maple View were organized in relatively traditional models (for example, students who received special services of any kind were pulled out of the general education classroom and moved to other locations in the building).

Rice Elementary reported in 2000 that 69% of its students were White, 14% Hispanic, 10% African American, 4% Asian, and 3% American Indian. At Rice Elementary about 70% of the students received free- or reduced-price lunch and the school had a *mobility rate of about 40% per school year (1999-2000)*. Test scores at Rice Elementary had climbed significantly over a three-year period (for example reading scores had climbed from 29% to 78% of the students at or above the state standards; math scores also increased but not as dramatically). This phenomenon was attributed largely to a redesigned Title 1 delivery model that brought reading and math specialists into regular classrooms.

Three teachers each from Maple View and Rice elementary schools agreed to participate in the teacher case studies. I purposely sampled teachers who were early in their career (2-4 years) and those who were experienced teachers (more than 7 years teaching) in order to compare teacher perceptions and experiences across a range of early to late teacher careers. In each school, I selected at least one teacher at the 3rd grade and 4th grade levels (these were the most highly tested grade levels). I selected teachers at both primary and intermediate grades at each school in order to balance my findings across grade levels in the schools. I also talked with the principals about my goals for the study (e.g., the study of teacher learning and standards-based reform; the need for teachers willing and able to articulately describe their work) and checked my selections with them before making my final decisions.

### Data Collection

This inquiry was conducted using policy-oriented case study and ethnographic field methods. Data collection methods focused on both the policy environments and classroom practice, with emphasis placed on district, school, and teacher levels of the policy system. I analyzed state documents related to K-12 standards-based reform in order to provide state level context for the study. I relied on the Center for the Study of Teaching and Policy (CTP) case study development in Washington State as a source of additional information. (I was associated with CTP during the time of the study.)

I conducted semi-structured interviews with seven district personnel and I interviewed each school principal two times during the study. At the district level, I interviewed the superintendent, two assistant superintendents (curriculum and instruction and learning support), the director of human resources who was also responsible for professional development, and three curriculum specialists. At each school, I interviewed school-based specialists such as the reading specialists and special education

teachers. In addition, I collected and reviewed a variety of district documents, videotaped professional development materials, and demographic data as well as school mission statements, Student Learning Improvement Plans, school-level student outcome data and other materials appropriate for the goals of the study.

In developing the teacher case studies, I utilized ethnographic field methods including the collection of in-depth field notes and multiple teacher interviews over time (Spradley, 1979; LeCompte & Preissle, 1993). I observed each of the six case study teachers as they taught their classes on a minimum of six different days during the school year (1999-2000). These observations ranged in time from 2 hours to 6.5 hours with the average observation lasting one half of a school day. I also sat in on teacher meetings, individual teacher planning sessions, informal conversations, and lunchtime activities. I interviewed each of the teachers three times over a period that extended from January of 2000 through June of 2000 using semi-structured, in-depth interview protocols (Spradley, 1979). The interviews were typically one hour in length. All interviews were tape recorded and professionally transcribed in verbatim text for later analysis. I collected curricular materials, teacher developed lesson plans, and examples of student work. This use of multiple methods of data collection was one form of triangulation, ensuring that multiple data sources would balance findings and protect against reliance on a particular source (Denzin, 1978).

### Data Analysis

Following ethnographic and interpretive traditions, data analysis for this project was ongoing and iterative. Formal steps in the data analysis process began with (1) a re-reading of all of the raw data and (2) jotting notes and observations in the margins of the interview transcripts, field notes, and documents. My notes were based on the theoretical framework with which the study was initiated and the constructs described by the participants of the study (LeCompte & Preissle, 1993). I used this early scan of the raw data to build an inductive understanding of what was in the data.

I developed analytic case summaries for each of the six teacher cases using the coding system that I had developed to organize my findings (refer to Table A-1 for the analytic codes). I also developed descriptive case accounts of both schools and the school district. Finally, I analyzed the data across the six teacher case accounts and within each major analytic category to develop interpretive understandings that explained the responses of the teachers to standards-based reform (LeCompte & Preissle, 1993). Table 1 (see page 6) presents a summary of the major cross-case themes in each analytic category.

To ensure that my interpretations of the data matched the reality of the participants in the study, I incorporated the following procedures into the research process. First, during data collection, I provided the teachers with photocopies of the field notes that I collected in their classrooms and asked them if the notes were accurate. Second, during the data analysis process, I provided the teachers with their own case summaries and asked for feedback regarding the accuracy of my descriptions and interpretations. One of the teachers met with me to discuss her case account and two teachers sent email feedback regarding their case summaries. I followed up with the remaining three teachers, and they confirmed that the case summaries were representative of their teaching practice.

**Table A-1. Analytic Codes Used to Develop Case Summaries**

| Code | Definition (Adapted from Wenger, 1998) |
|---|---|
| 1. Communities of Practice | Defined as grade level teams of teachers, teaching partners, or other configurations of teachers working together that are potential communities of teaching practice. Defined here as the *most local group of teachers* with whom the case study teacher works out the daily demands of her work. Characterized by Wenger (1998) as having the following indicators:<br>• Sustained mutual relationships, either harmonious or conflictual.<br>• Shared ways of doing things (together).<br>• Rapid flow of information and propagation of innovations and ideas.<br>• Absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process.<br>• Substantial overlap in participants' descriptions of who belongs.<br>• Knowing what others know, what they can do, and how they can contribute to an enterprise.<br>• Mutually defining identities.<br>• Ability to assess the appropriateness of actions and products.<br>• Specific tools, representations, and other artifacts.<br>• Local lore, shared stories , inside jokes, knowing laughter.<br>• Jargon and shortcuts to communication as well as the ease of producing new ones.<br>• Certain styles recognized as displaying membership.<br>• Shared discourse reflecting a certain perspecive on the world. |
| 2. Engagement in teaching practice<br><br>Sub codes: instructional style (e.g., pedagogies, classroom management, interactions with students); curriculum and assessment (e.g., reading/writing, math); planning and organization; ideas and attitudes about practice. | One of the ways that teachers participate and belong to communities of practice (learn within communities of practice). Involves doing joint tasks and developing relationships and a shared repertoire. Could be meeting; talking; having time and places to do so; having or giving help; developing and defining competence; devising solutions and meanings; having stories about practice; gossiping; remembering; developing discourses; maintaining continuity over time; and constructing a learning trajectory. |
| 3. Opportunities for Imagination<br><br>Sub codes: district opportunities (e.g., curricular standards, assessment practices, professional development); the school as an opportunity, teacher-initiated opportunities. | The materials or resources that enable teachers to adopt other perspectives outside of their own bounded practice. Involves orientation to images of what could be (e.g., classes, curricula, videos, models, etc.); reflection (e.g., retreats, time-off, conversations, breaks in rhythm, etc.); and explorations or trying new things out (e.g., trying out new curricula, using ideas from an inservice, visiting other classes). |
| 4. Alignment of practice with policy<br><br>Sub codes: curricular policies (e.g., reading, math), assessment policies, other relevant policies. | The process that produces the ability to act with respect to a broad and rich picture of the world, to do something in concert with others, to embrace a bigger idea as part of our identity. Alignment involves making shifts or changes in practice based on a new idea or set of ideas. Alignment includes convergence around a common vision, coordinating practice with new standards or methods, or enforcement of new policies or procedures (i.e., by external structures). |

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